MEMORANDUM

TO: Loren J. Harlow

DATE: 29 October 1980

FROM: Arnold K. Hatai

SUBJECT: COMPLIANCE INSPECTIONS - ASBESTOS MINE AND MILL FACILITIES, FRESNO COUNTY

In Western Fresno County the uplift of the Coast Ranges has yielded a massive localized "plug" of asbestos rich serpentine ore. The Coalinga Asbestos Company and Atlas Asbestos Company mining operations are located on this ore body in the White Creek watershed. These inspections were made in response to reportedly high concentrations of asbestos fibers found in the California Aqueduct, conjectured to be the result of the mining operations.

The asbestos wastes generated by these mining facilities are: (1) raw waste ore removed from the hillside and stockpiled downhill (Reportedly the asbestos content of the ore must have been at least 25% to be milled.); (2) waste tailings (fine nonmarketable asbestos and rock) generated by the milling or asbestos extraction process. Waste discharge requirements for the facilities specify that the discharge of asbestos mining wastes shall not cause a nuisance or pollution. My inspection of these facilities follow.

Coalinga Asbestos Company, Inc.
Waste Discharge Requirements, Resolution No. 70-33

On 15 October 1980, Mr. Carl Carlucci representing the State Department of Health Services and I visited the subject mine and mill facilities. Messrs. Ralph Bisset, local representative for the Southern Pacific Land Company; David Long, attorney for Southern Pacific; and Joseph Jeno, engineer for Dames and Moore Consultants accompanied us. The Southern Pacific Land Company owns the mill property and facilities.

My observations indicated that the facility consisted of three open pit mines and one mill. The mill was reportedly completed in 1962 and operating in 1973, but it had been closed prior to my visit.

At the mill, shown on the attached map, the tailings stockpile was observed to be in a canyon area in an intermittent watercourse. To contain the surface runoff flow and groundwater springs, several large ponds were found cut below the surface elevation of the tailings to apparently capture the natural flow from watershed A (see map). No breaks in the pond perimeter were observed; however, the tailings appeared to be a loose and erodable material. (A sample was taken to determine the asbestos content.) In addition, makeshift dams upstream and downstream were observed which appeared to have been breeched. The downstream dam appeared to have captured eroded tailings and seepage water from the upstream tailings stockpile (slides on file).

Two of the three observed mines were found to be a part of the White Creek watershed and inspected (see map). At the Mistake Mine, west of the mill, evidence of high surface runoff flows were found to have channeled across stockpiled ore material, eroding the material readily off the mine site. At the other mine north of the mill, the slopes of stockpiled ore appeared to have undergone channeled erosion on the slopes. It appeared that this material goes directly into a drainage channel (slides on file). From the enclosed map and my observations, it is evident that the drainage from the mine sites is tributary to White Creek. In addition, storm runoff flows from watershed B has a potential to flow through the tailings stockpile.

To better analyze the observed site conditions, a storm runoff analysis of watersheds A and B is provided in Table 1.

Table 1

Storm Runoff Flows from Above the Mill[1/]

Watershed	Drainage Area (acres)	Peak Discharge (cfs) 10-yr. Storm	Peak Discharge (cfs) 100-yr. Storm	Total Volume of Runoff (acre-feet) 24-hour 10-yr. Storm	Total Volume of Runoff (acre-feet) 24-hour 100-yr. Storm
A	100	150	300	10	20
B	600	700	1,300	60	100

1/ The rational method was used assuming saturated soil conditions.

Based on the estimated magnitude of the flows and volumes and my observations, it is evident that the existing drainage control has failed to completely control the storm runoff from the mine and mill areas.

Mr. Long indicated that the Southern Pacific Land Company has always owned the property in Section 1, T19S, R13E, MDB&M on which the mill and tailings area are located. Apparently, the land was leased to Johns-Manville Company who developed the property for the mill and operated the mines as Coalinga Asbestos Company. When they did not maintain the lease, the land use and mill facilities reverted back to Southern Pacific. Mr. Long indicated that, as the landowners, Southern Pacific would take the responsibility and necessary actions for meeting Board requirements.

In conclusion, the Coalinga Asbestos facility threatens to violate Board discharge resolutions which specify that:

"1. The discharge shall not cause a pollution of ground or surface waters.

2. The discharge shall not cause a nuisance."

As a result, we should seek corrective measures which will prevent mine and mill generated asbestos wastes from entering drainage courses. To accomplish this, the landowner should be requested to implement corrective measures as necessary to provide adequate drainage control facilities and onsite erosion controls to maintain the wastes on the facilities.

Atlas Asbestos Company
Waste Discharge Requirements, Resolution No. 70-32

On 17 October 1980, Messrs. Carl Carlucci representing the State Department of Health Services and James Wolfson and I of the Board staff visited the subject mine. No Atlas Company officials could accompany us as the mine was not in operation and our understanding is that the owners have stopped operations and initiated bankruptcy procedures.

My observations indicated that the facility consists of two open pit mines and one mill. Reportedly, the mill was completed in 1963 and found operating in 1973, with operations closed in June 1980.

At the mill shown on the attached map, the tailings stockpile was observed to be situated on a plateau or bench area below the mines. On the west boundary of the tailings, an intermittent stream was dammed both above and below the tailings. The drainage area for this stream is shown as watershed C on the map. Drainage control facilities were not observed on the remaining perimeter since apparently no major streams are immediately adjacent to the site. However it appeared that surface runoff from the top of the mill and tailings area had channeled down the slopes of the tailings. An estimate of the total volume of the runoff from the mill and tailings area itself is shown on Table 1 and designated as watershed D (slides on file).

At the mine (see map) the drainage appeared to be controlled by the use of natural shape of the mine pits. In the lower mine, water was ponded. The upper mine appeared to extend up to the ridge and did not appear to be heavily eroded although drainage from this area could not be determined readily. Below the mines and tailings area another small settling pond was observed which appeared to have a break with spring water still flowing into it. The two tributary watershed areas above the mining areas are collectively shown was watershed E on the map.

The respective storm runoff flows from the mill and mine areas is shown in Table 2.

Table 2

Storm Drainage Flows from Above and Off the Facility[1/]

Watershed	Drainage Area (acres)	Peak Discharge (cfs) 10-yr. Storm	Peak Discharge (cfs) 100-yr. Storm	Total Volume of Runoff (acre-feet) 24-hour 10-yr. Storm	Total Volume of Runoff (acre-feet) 24-hour 100-yr. Storm
C	130	170	320	14	20
D	30	Not applicable		4	5
E	70	140	270	8	12

1/ The rational method was used assuming saturated soil conditions.

Based on the estimated magnitude of the flows and volumes and my observations, it is evident that maintenance of the drainage facilities is needed to prevent long term erosion of the open pit mine and mill areas to intermittent water courses below.

The facility is currently owned by Wheeler Properties, Inc. of Reno, Nevada which will apparently no longer assume responsibility for the Atlas facility. According to Mr. Dick Charlton of Vinnell Mining and Minerals Corporation (previous owners of the Atlas facility), the facility was sold to Wheeler Properties in 1974. Now that Wheeler has defaulted, he indicated that the property will revert back to Vinnell in January because of the bankruptcy. Vinnell then plans to sell the facility.

In conclusion, the Atlas Asbestos facility threatens to violate Board discharge resolutions which specify that:

"1. The discharge shall not cause a pollution of ground or surface waters.

2. The discharge shall not cause a nuisance."

As a result we should seek corrective measures which will prevent mine and mill generated asbestos wastes from entering drainage courses. To accomplish this, the responsible party should be identified and requested to implement corrective measures as necessary to provide adequate drainage control facilities and onsite erosion controls to maintain the wastes on these facilities.

As we understand it, EPA also is pursuing enforcement action on Atlas Asbestos. We should coordinate our actions with theirs as we seek compliance with Regional Board requirements. In addition, the California Department of Water Resources and U.S. Water and Power Resources Service are formulating watershed studies for flood control and now asbestos control. These should also be coordinated to include our concerns, if possible.

Our basic concern is the source of the asbestos in the California Aqueduct. Since there is a massive natural asbestos ore body in the watershed, any watershed study should include a determination of the natural contribution from this ore body to properly formulate an asbestos control plan.

Arnold K. Hatai

ARNOLD K. HATAI
Staff Engineer

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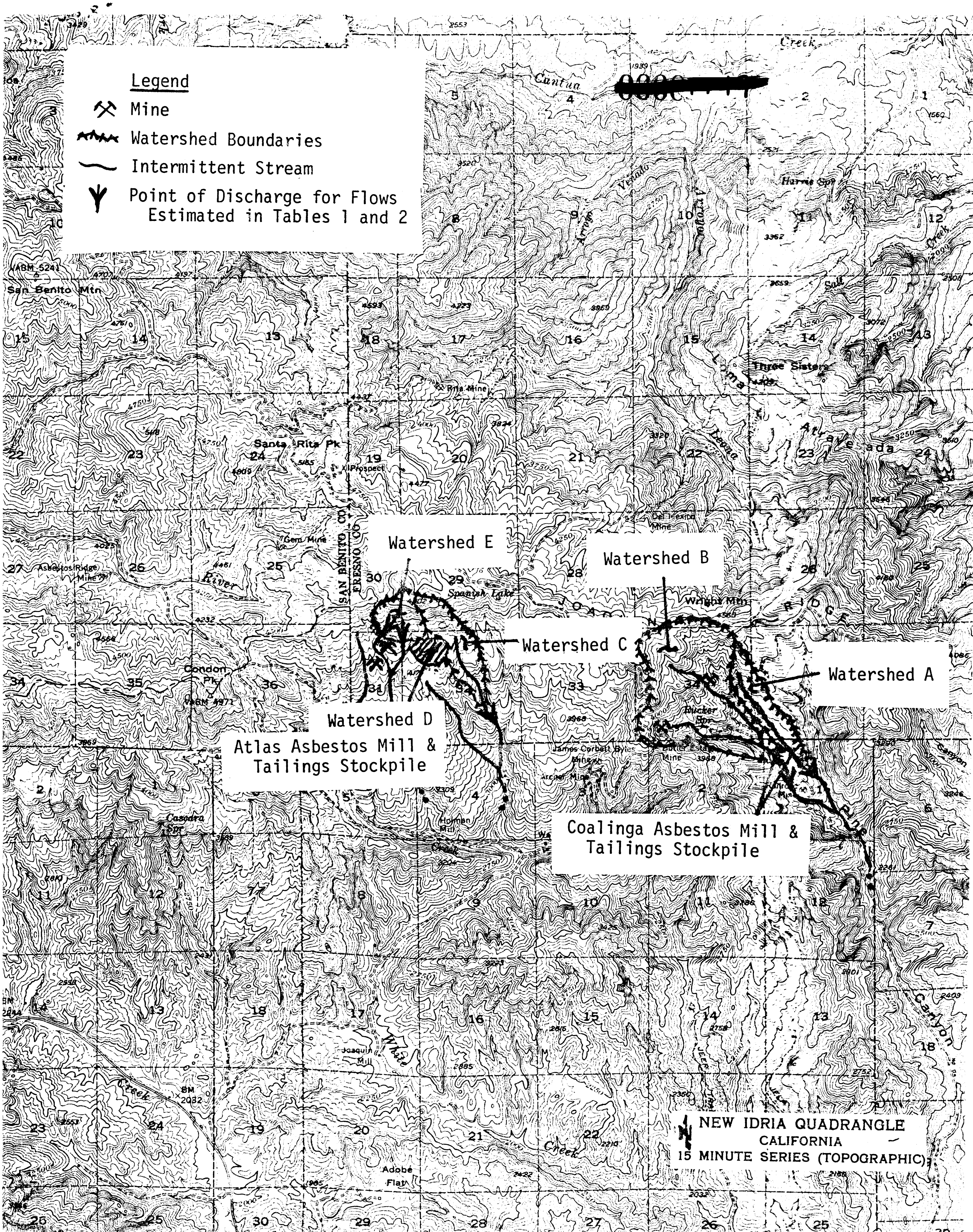
Enclosure

cc: Mr. Charles Eckerman, Environmental Protection Agency
Mr. Ken Greenberg, Environmental Protection Agency
Mr. Scott Florence, Bureau of Land Management, Folsom
Mr. Gunter Redlin, State Department of Health Services
Mr. Carl Carlucci, State Department of Health Services
Mr. Louis Beck, State Department of Water Resources
Mr. Victor McIntyre, State Department of Water Resources
Mr. James Parsons, State Water Resources Control Board
Mr. Tom Gay, California Division of Mines and Geology, Sacramento
Mr. Clint Jones, Fresno County Health Department
Mr. R. I. Bissett, Southern Pacific Land Company
Mr. David W. Long, Attorney, Southern Pacific Land Company


Legend
Mine
Watershed Boundaries
Intermittent Stream
Point of Discharge for Flows Estimated in Tables 1 and 2
Watershed A
Watershed B
Watershed C
Watershed D
Watershed E
Atlas Asbestos Mill & Tailings Stockpile
Coalinga Asbestos Mill & Tailings Stockpile
San Benito Mtn
Santa Rita Pk
Rita Mine
Gem Mine
Asbestos Ridge Mine
Condon Pk
Spanish Lake
Wright Mtn
Three Sisters
Del Mexico Mine
Butler's Mine
James Corbett Byles Mine
Archer Mine
Rucker Spr
Casoda Spr
Hoffman Mill
Joaquin Mill
Adobe Flat
Harris Spr
Cantua
SAN BENITO CO
FRESNO CO
NEW IDRIA QUADRANGLE
CALIFORNIA
15 MINUTE SERIES (TOPOGRAPHIC)